A Big Earth Data Platform for Three Poles

**Bacteria distribution in Tibetan lakes (version 1.0) (2015)**

1、Description

Microbial diversity data of lakes on the Tibetan Plateau. One hundred and thirty-eight samples were collected from July 1st to July 15th, 2015, from 28 lakes (Bamco, Baima Lake, Bange Salt Lake, Bangong Lake, Bengco, Bieruozeco, Cuoeco, Cuoe (Pingcuo North), Dawaco, Dangqiongco, Dangreyongco, Dongco, Eyacuoqiong, Gongzhuco, Guogenco, Jiarebuco, Mapangyongco, Namco, Nieerco (Salt Lake), Normaco, Pengyanco, Pengco, Qiangyong, Selinco, Wuruco, Wumaco, Zharinanmuco, and Zhaxico). The salinity gradients range from 0.07-118 ppm.
The DNA extraction method: The DNA was extracted using an MO BIO PowerSoil DNA kit after the lake water was filtered onto a 0.45 membrane. The 16S rRNA gene fragment amplification primers were 515F (5'-GTGCCAGCMGCCGCGGTAA-3') and 909r (5'-GGACTACHVGGGTWTCTAAT-3'). The sequencing method was Illumina MiSeq PE250, and the raw data were analyzed by Mothur software, including quality filtering and chimera removal. The sequence classification was based on the Silva109 database, and archaea, eukaryotic and unknown source sequences have been removed. OTUs were classified by 97% similarity, and sequences that appear once in the database were then removed. Finally, each sample was resampled to 7,230 sequences/sample.
GPS coordinates, evolutionary information, and environmental factors are listed in the data.

2、Keywords

Theme：Biological Resources,Surface Water,Bacterial species,Lakes
Discipline：Terrestrial Surface,Human-nature Relationship
Places：Tibetan Plateau
Time：

3、Data details

1.Scale：None

2.Projection：

3.Filesize：3.0MB

4.Data format：txt

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：28.889067 | - |
| west：88.688369 | - | east：90.227033 |
| - | south：32.930061 | - |

5、Time frame:2015-07-06 16:00:00+00:00--2015-07-20 16:00:00+00:00

6、Reference method

References to data:

JI Mukan. Bacteria distribution in Tibetan lakes (version 1.0) (2015). A Big Earth Data Platform for Three Poles, doi:10.11888/Lake.tpe.0000009.file2018

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）
Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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